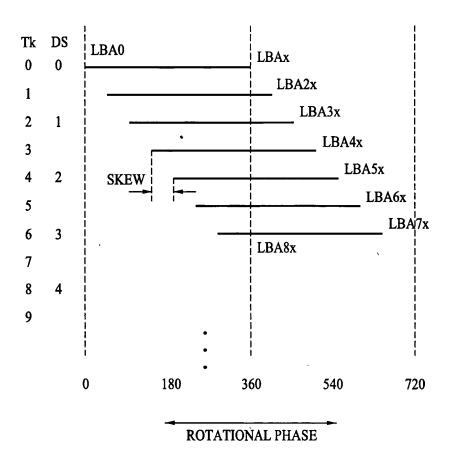
Serial No.: 09/659,481 69/11/2000 No.: Q00-1032-US1 Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 1 of 15 sheets

1/15



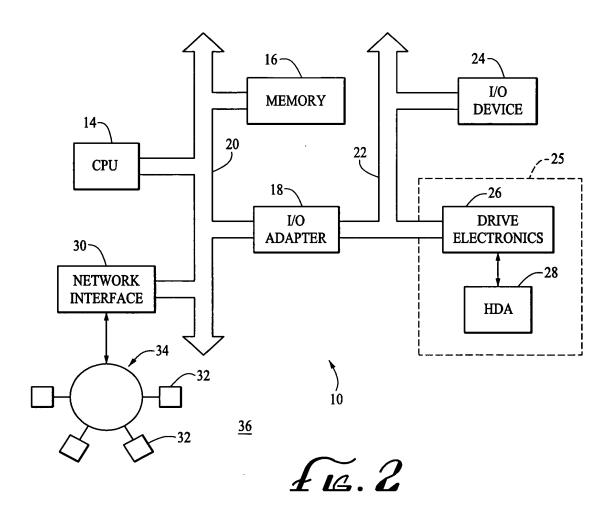
FRIOR ART



Serial No.: 09/659,481 Filed: 09/11/2000 ket No.: Q00-1032-US1 ventor: ADAMS et al. Attorney: Tejpal S. Hansra

Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 56 Group Art Unit: 2697 Telephone: 360-527-1400

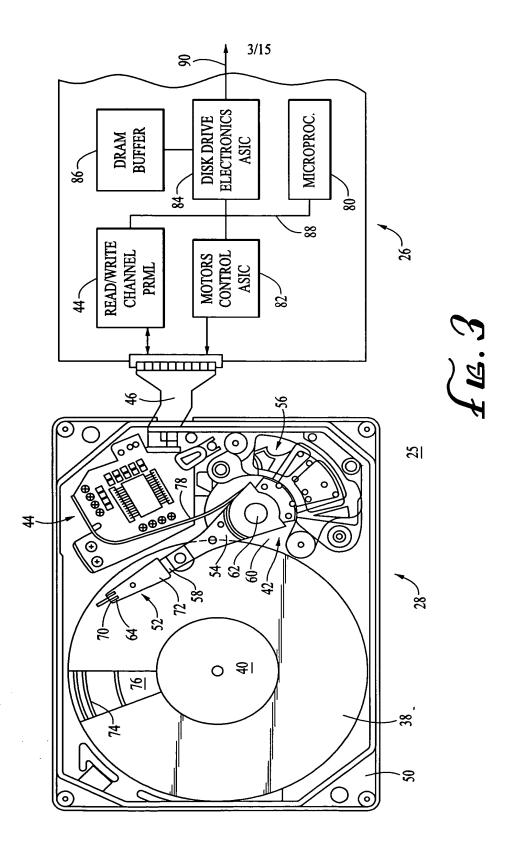
Replacement Sheet 2 of 15 sheets





Serial No.: 09/659,481 Filed: 09/11/2000 Doc 2001: Q00-1032-US1 Inva ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 3 of 15 sheets

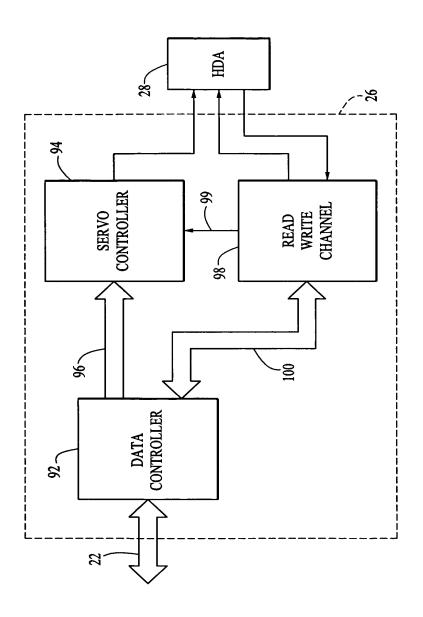




Serial No.: 09/659,481 Filed: 09/11/2000 No.: Q00-1032-US1 or: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 3650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 4 of 15 sheets

4/15



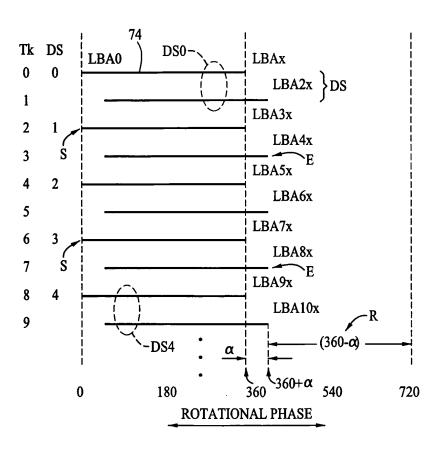
£ 16.4



Serial No.: 09/659,481 Filed: 09/11/2000 ket No.: Q00-1032-US1 Intor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 565 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 5 of 15 sheets

5/15

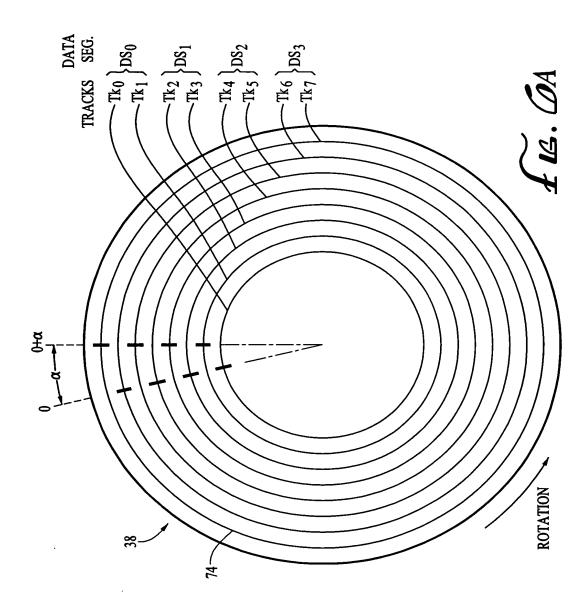


Fis.5



Serial No.: 09/659,481 09/11/2000 et No.: Q00-1032-US1 Inventor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 6 of 15 sheets





al No.: 09/659,481 i: 09/11/2000 Docket No.: Q00-1032-US1 Inventor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 204 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 7 of 15 sheets

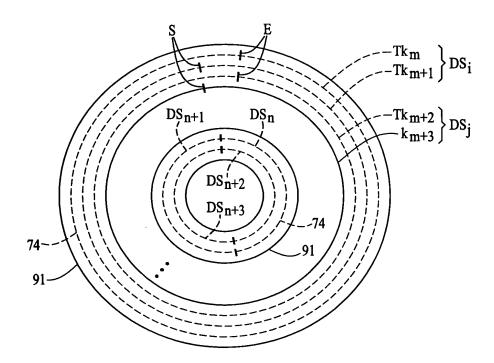
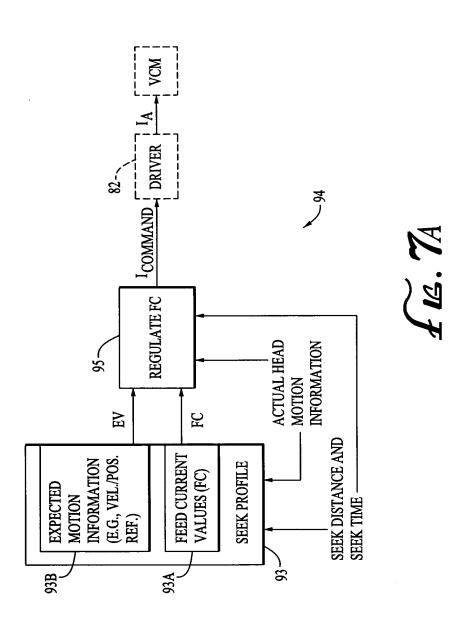


Fig. OB



l No.: 09/659,481 09/11/2000 Locat No.: Q00-1032-US1 Inventor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 8 of 15 sheets

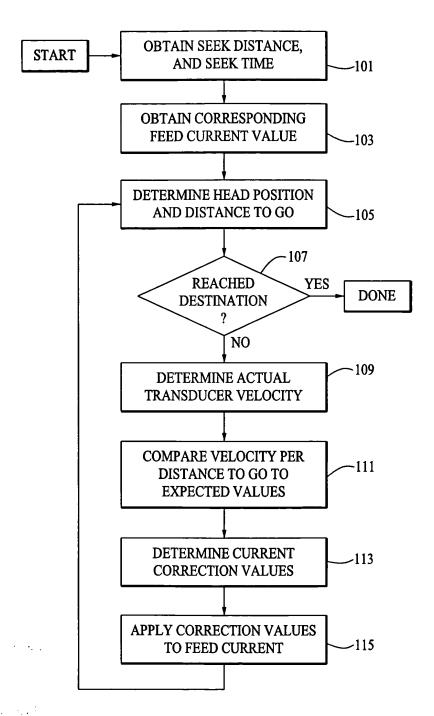


FEB 2 3 2004

o9/11/2000 et No.: Q00-1032-US1 Inventor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 9 of 15 sheets

9/15



F16. 7B



Serial No.: 09/659,481 ed: 09/11/2000 cket No.: Q00-1032-US1 Inventor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 56 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 10 of 15 sheets

10/15

SUMMARY OF VARIOUS SOLUTIONS - 2 TRACKS PER DS 8.4 AVG SEEK TIME 11 TREV

ROTATION ON AVG SEEK AVG RATE, **SKEW** SKEW **SKEW ROTATION ROTATION** TIME, MSEC **MBPS** MODULUS FACTOR TIME **PHASE** TIME 0.85 7.82 17 6 3.88 0.647 7.12 17 5 0.706 7.76 0.92 8.03 3.24 18 5 3.08 0.722 7.94 0.95 8.07 5 8.38 1.00 8.19 21 2.62 0.762 17 4 2.59 8.41 1.00 8.2 0.765 22 5 2.50 0.773 8.50 1.01 8.23 0.778 8.25 18 4 2.44 8.56 1.02 5 8.26 23 2.39 0.783 8.61 1.02 8.29 19 4 2.32 0.789 8.68 1.03 0.8008.32 20 4 2.20 8.80 1.05 8.90 2.10 0.810 8.35 21 4 1.06 2.06 8.94 8.36 32 6 0.813 1.06 12 2.06 8.94 64 0.813 1.06 128 8.94 24 2.06 0.813 1.06 256 8.94 1.06 48 2.06 0.813 512 96 0.813 8.94 1.06 2.06 8.95 1024 191 2.05 0.813 1.07

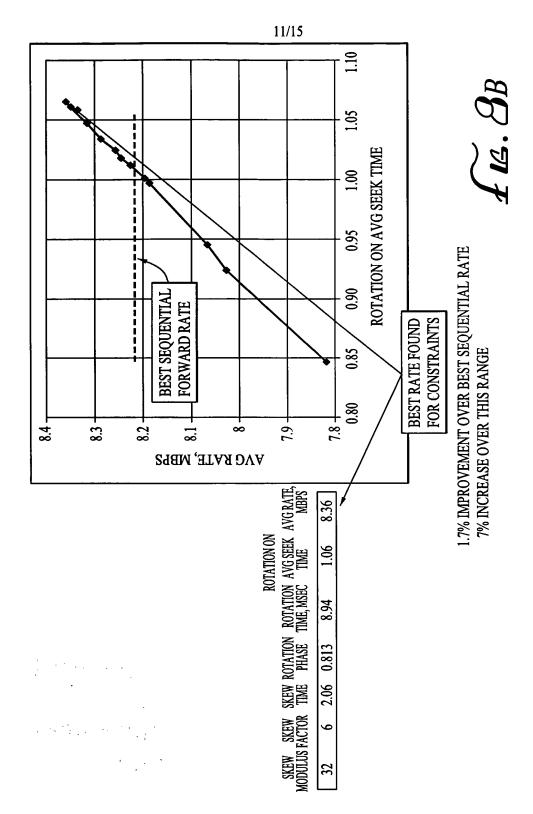
Fis. BA

FEB 2 3 2004 LY

Serial No.: 09/659,481
Filed: 09/11/2000
et No.: Q00-1032-US1
ntor: ADAMS et al.
Attorney: Tejpal S. Hansra

Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 11 of 15 sheets

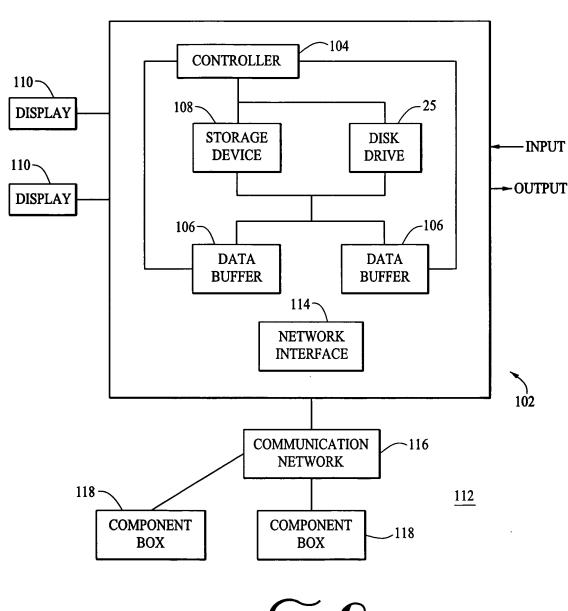




Serial No.: 09/659,481 Filed: 09/11/2000 t No.: Q00-1032-US1 or: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 12 of 15 sheets

12/15



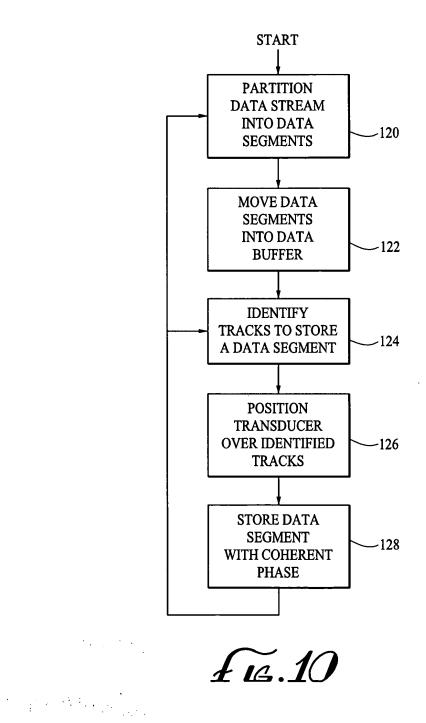
£16.9



Serial No.: 09/659,481 Filed: 09/11/2000 No.: Q00-1032-US1 or: ADAMS et al. Attorney: Tejpal S. Hansra

Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 5650 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 13 of 15 sheets



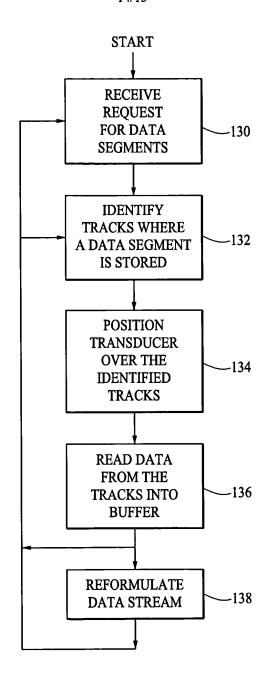
Fis.10



Serial No.: 09/659,481 Filed: 09/11/2000 pcket No.: Q00-1032-US1 ventor: ADAMS et al. Attorney: Tejpal S. Hansra Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 56 Group Art Unit: 269 Telephone: 360-527-1400

Replacement Sheet 14 of 15 sheets





Fis. 11



Serial No.: 09/659,481 Filed: 09/11/2000 cket No.: Q00-1032-US1 entor: ADAMS et al. Attorney: Tejpal S. Hansra

Reply to Office Action of August 18, 2003 Reply Mailed: February 18, 2004 Confirmation No.: 565 Group Art Unit: 2697 Telephone: 360-527-1400

Replacement Sheet 15 of 15 sheets

